



City of Sunnyvale 2004 Bicycle Transportation Plan

December 2003

Pursuant to the Requirements of the
California Streets and Highways Code
California Bicycle Transportation Act
Section 891.2

City of Sunnyvale

2004 Bicycle Transportation Plan

TABLE OF CONTENTS

Section	Title	Page
1	Estimated Current and Projected Bicycle Commuters	1
2	Existing and Proposed Land Use Information	2
3	Existing and Proposed Bikeways Map	3
4	Bicycle Parking Facilities <ul style="list-style-type: none"> ▪ Existing Public Destination and Inter-Modal Bicycle Parking Facilities ▪ Proposed Public Destination and Inter-Modal Bicycle Parking Facilities ▪ Facilities for changing and storing cloths and equipment 	5
5	Safety, Education and Enforcement	9
6	Summary of Citizen Involvement in Bicycle Planning	11
7	Consistency with Other Local and Regional Plans	12
8	Proposed Projects and Projects Priority <ul style="list-style-type: none"> ▪ Proposed Projects and Priority ▪ Past Expenditures ▪ Future Funding Needs 	13

ATTACHMENTS

A	1993 Sunnyvale Bicycle Plan	A1
B	Sunnyvale General Plan Map	B1
C	Sunnyvale Zoning Map	C1
D	Land Use and Transportation Element - "The Uses of Land"	D1
E	Report to Council and Resolution Approving the Bicycle Transportation Plan	E1

TABLE OF FIGURES

1	Existing and Proposed Bike Lanes	4
2	Existing Bicycle Parking Facilities	6
3	Proposed Bicycle Parking Facilities	7

SECTION 1

Estimated Current and Projected Bicycle Commuters

Using the 1990 U.S Census Bureau Journey to Work data, Sunnyvale Staff estimates that 603 non-resident commuters bicycle to Sunnyvale each day and 624 residents use bicycles to commute to work.

Neighborhood (non-private) school enrollment in Sunnyvale in 1998 is 10,308. The U.S. Department of Transportation estimates that typically up to 20% of students ride bicycles to school. Using this estimate, an additional 2,062 student commuters use bicycles in Sunnyvale.

The U.S Department of Transportation forecasts a doubling of bicycle commuting upon completion of comprehensive bicycle networks. Using this assumption, Sunnyvale assumes that there will be 3,289 bicycle commuters in Sunnyvale upon implementation of the Sunnyvale Bicycle Transportation Plan.



SECTION 2

Existing and Proposed Land Use Information

The Sunnyvale General Plan and Zoning Map illustrate existing zoning and the proposed land use plan to the year 2010 in Sunnyvale (Attachments B and C). Also an excerpt from the November 1997 Land Use and Transportation Element of the Sunnyvale General Plan is included as Attachment D. This excerpt provides a further description of Sunnyvale land use and describes detailed information about, land for transportation purposes, residential, commercial/office, neighborhood shopping centers, industrial, public and quasi-public facilities, and open space/parks.



SECTION 3

Existing and Proposed Bikeways

Figure 1 illustrates existing and proposed bikeways in the City of Sunnyvale.

The City of Sunnyvale has a total of 33 linear miles of Class 2 on street bicycle facilities. The Sunnyvale General Plan includes the following policies regarding bikeway development:

C3.3.5 Make the traffic signal system responsive to all users, including bicyclists and pedestrians.

C3..5.4 Maximize the provision of bicycle and pedestrian facilities.

C3.5.5 Implement the Sunnyvale Bicycle Plan.

N1.3.2 Study the adequacy/deficiency of bicycle and pedestrian access and circulation within neighborhoods.

N1.3.3 Design streets, pedestrian paths, and bicycle paths to link neighborhoods with services.

N1.13.5 Provide pedestrian and bicycling opportunities to neighborhood commercial services.



City of Sunnyvale Bicycle Lane Network

Legend

- Existing Bike Lanes
- Proposed Bikeway Network
- Park Facility



November, 2003

Figure 1

1 inch equals 3,679 feet



SECTION 4

Bicycle Parking Facilities

End-of-Trip Bicycle Parking Facilities

Figure 2 illustrates existing public bicycle parking facilities under the jurisdiction of the City of Sunnyvale. Figure 3 illustrates proposed public bicycle parking facilities.

Bicycle parking facilities are located in or near civic buildings shopping centers, schools, parks, business centers and other locations where people congregate. The City of Sunnyvale General Plan contains the following policies relative to bicycle parking facilities:

N1.10.2 Encourage commercial enterprises and offices to provide support facilities for bicycles and pedestrians.

N1.14.2 Ensure the provision of bicycle support facilities at all major public use locations

The Sunnyvale Municipal Code requires that multifamily residential developments of five or more units shall have secured bicycle parking at a ratio of one secured bicycle parking space for every four units, but no fewer than four spaces. (SMC 19.46.040)

Inter-Modal Bicycle Facilities

Figure 2 also illustrates existing bicycle parking facilities for connections with and use of other transportation modes in Sunnyvale. This includes the Caltrain and the Valley Transportation Authority Light Rail. Bicycle parking at two Caltrain Stations was supplied by the City of Sunnyvale and is maintained by the Peninsula Corridor Joint Powers Board.

Figure 3 illustrates proposed multi-modal bicycle/transit facilities in Sunnyvale. Santa Clara Valley Transportation Authority transit buses accommodate bicycles via exterior racks and some allowance for carrying on bicycles during off-peak hours. In addition, Caltrain commuter trains accommodate up to 32 bicycles per train sometimes more.

The Sunnyvale General Plan contains the following policies relative to multi-modal transportation facilities:

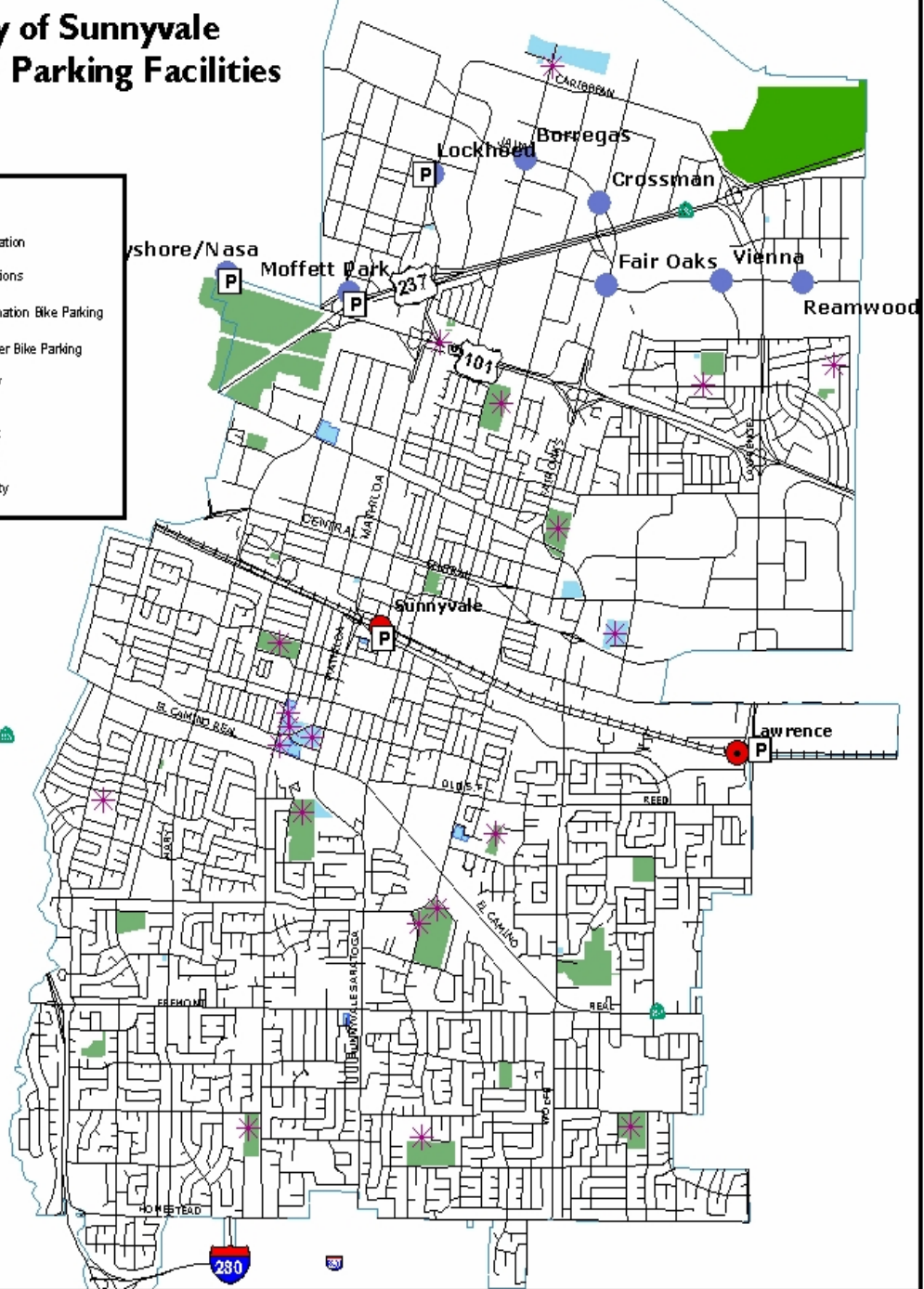
C1.2.3 Encourage the development of multi-modal transit centers.

C3.5.7 Ensure safe and efficient pedestrian and bicycle connections to neighborhood transit stops.

C3.6.1 Develop clear, safe and convenient linkages between all modes of travel; including, access to transit stations and stops, and connections between work, home, and commercial sites.



City of Sunnyvale Bicycle Parking Facilities

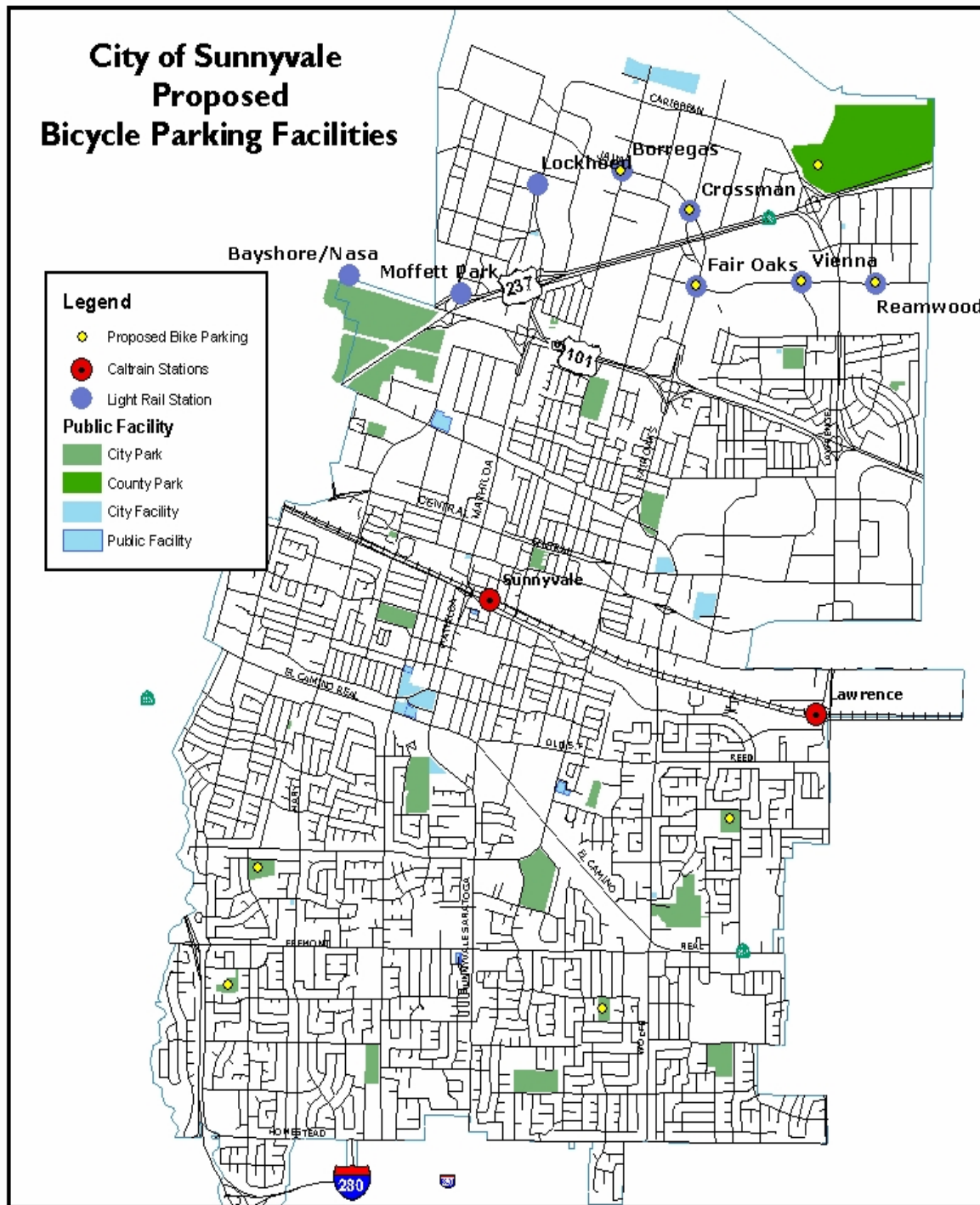


November, 2003

Figure 2

1 inch equals 3,714 feet





November, 2003

Figure 3

1 inch equals 3,714 feet



Cloths and Equipment Storage

The City of Sunnyvale does not support any existing public cloths and equipment storage facilities and does not have plans to install and such facilities at the current time.

City of Sunnyvale General Plan contains the following policies relative to bicycle cloths and equipment storage facilities:

N1.10.2 Encourage commercial enterprises and offices to provide support facilities for bicycles and pedestrians.

N1.14.2 Ensure the provision of bicycle support facilities at all major public use locations.

The Sunnyvale Municipal Code provides developers an option for relief from parking requirements in exchange for installation of covered secure bicycle parking and/or shower and locker facilities (SMC 19.48.030)



SECTION 5

Safety, Education and Enforcement

The City of Sunnyvale Department of Public Safety conduct annual bicycle education training at all public elementary and middle schools in the City using the "Safe City" simulated roadway tool. Public Safety also conducts this training, along with a bicycle rodeo at the Annual Sunnyvale Health and Safety Fair.

The Sunnyvale Bicycle and Pedestrian Advisory Committee along with Transportation and Traffic Division, also undertake annual education efforts. Child helmet give-aways and free helmet fittings are conducted at the Annual Sunnyvale Health and Safety Fair. At this time, education pamphlets are also distributed to the public.

Bike to Work Day is also part of a Sunnyvale bicycle education program. During this event, the City sponsors three stations where education and promotional material is distributed to bicyclists. This education material includes, but is not limited to, the *Street Smarts Handbook*, information on the California Bike Laws, and the Sunnyvale bicycle map that shows the location of bicycle lanes and trails, ranks the suitability level of each street for bicycle travel, includes instruction on how to bicycle in traffic and safety tips.

Lastly, educational and safety material is distributed annually to all households in Sunnyvale through Utility Bill Inserts. The Sunnyvale Bicycle and Pedestrian Advisory Committee is integrally involved in the development of these inserts. In the recent past, they have taken up a "share the road" message, instructing motorists how to drive properly with bicycles, and vice versa, and encouraging mutual respect.

The Division of Transportation and Traffic analyzes all Department of Public Safety collision reports involving bicyclists. This analysis usually occurs within weeks of when the collision occurs. Collision locations are also mapped and reviewed on an annual basis to look for high incident locations and other trends. This is done using the Crossroads Database in conjunction with ArcView GIS software. Collision location mapping is also conducted for all stop sign and traffic signal warrant analysis and for other Transportation and Traffic Projects as appropriate.

The City of Sunnyvale Bicycle Plan contains the following policies relevant to bicycle safety education and enforcement:

BP.C Make provisions for education about the rights and responsibilities of cyclists and motorists.

BP.C1 Maintain an effective bicycle education program for all our citizens.

BP.C1a Continue having Public Safety and Traffic Engineering provide education in our schools.



BP.C1b Continue providing education through the use of bike rodeos.

BP.C1c Provide bicycle education and training necessary for Public Safety officers.

BP.C2 Study the expansion of bicycle education and safety programs to include other segments of the public.

BP.C2a Study methods for educating motorists and cyclists about rights and responsibilities on the road.

BP.C2b Investigate the provision of bicycle riding skills programs for various segments of the public.

BP.C3 Provide enforcement related to the rights and responsibilities of bicyclists.

BP.C3a Public Safety officers should cite violations by bicyclists or motorists in a manner that will promote greater education and safety.



SECTION 6

Citizen and Community Involvement


Public involvement in the review and approval of various City actions that comprise elements of the Bicycle Transportation Plan are as follows:

Citizen involvement in the adoption of the 1993 Bicycle Plan included five public hearings before the Sunnyvale Bicycle Advisory Committee, distribution of approximately 150 copies of the draft document, notification to nine bicycling organizations, notification in the Sunnyvale Sun of the City Council public hearing, and a public hearing before the Sunnyvale City Council.

Public contact in the adoption of the 1997 Land Use and Transportation Element of the General Plan included six joint Planning Commission/City Council study sessions; formation of a citizens focus group comprised of 25 members from a broad range of community interests; three meetings of the focus group; one day long community workshop; distribution of 110 copies of the draft document to concerned citizens and agencies; notifications of the City Council public hearing to 50 additional concerned citizens; presentations to the Sunnyvale Bicycle Advisory Committee and Housing and Human Services Commission; one Planning Commission public hearing; one City Council public hearing; and announcement of the City Council public hearing in the San Jose Mercury News.

Public contact in the development of bicycle support facility incentives and requirements for bicycle parking at multi-family residential developments included two hearings by the Sunnyvale Bicycle Advisory Committee, one Planning Commission public hearing, and two Sunnyvale City Council public hearings.

Proposed or completed bicycle projects are variously considered by City Council and are subject to public hearings at the time grant applications are authorized and/or the annual City budget is approved. City budget adoption involves two public hearings.

At its November 20, 2003 meeting the Sunnyvale Bicycle and Pedestrian Advisory Committee received a report on the City's proposed applications for Bicycle Transportation Account funding. The City Council authorized submittal of grant applications and attendant documentation at its  meeting.



SECTION 7

Consistency with Local and Regional Plans

This Bicycle Transportation Plan is consistent with, and contains elements of (whole and in part) the Land Use and Transportation Element of the Sunnyvale General Plan, and the Sunnyvale Bicycle Plan.

Based on staff review, this Bicycle Transportation Plan is consistent with the Air Quality Sub-Element and the Energy Element of the Sunnyvale General Plan. Accordingly, these elements have been determined by the Sunnyvale City Council to be consistent with the Bay Area Clean Air Plan.

This Bicycle Transportation Plan incorporates relevant bicycle improvement plans for Sunnyvale contained in the Santa Clara County VTP 2020 Transportation Plan for the Santa Clara Valley Region, and the Santa Clara Countywide Bicycle Plan.



SECTION 8

Proposed Projects and Projects Priority

The following projects have been identified and ranked as part of the City of Sunnyvale *Long-Range Bicycle Capital Improvement Program Study* completed in 2000. This study established a comprehensive bikeway network in the City of Sunnyvale, ranked each project using a variety of variables, and developed a recommended long-range Bicycle Capital Improvement Program.

Proposed Projects and Project Priority		
Rank	Project Name/Description	Cost Estimate
1	Borregas Avenue Bicycle Bridges	\$6.5 million
2	Bernardo Avenue Caltrain Undercrossing	TBD
3	Mathilda: US 101-Maude (restriping)	\$67,100
4	Mary: Fremont-El Camino Real (parking restriction)	\$103,000
5	Evelyn: Sunnyvale-Reed (lane removal)	\$123,900
6	Borregas (restriping, parking removal)	\$139,600
7	Duane: Fair Oaks-Lawrence (lane removal, restriping)	\$97,300
8	Mary: El Camino Real-Evelyn (restriping)	\$48,600
9	Hollenbeck: Grand Coulee-Dansforth (parking restriction)	\$122,400
10	Pastoria: El Camino Real-Evelyn (shared use, restriping, roadway widening)	\$132,100
11	Bernardo: El Camino Real-Evelyn (shared use, restriping)	\$27,800
12	Hendy: Sunnyvale-Fair Oaks (shared use)	\$16,000
13	Tasman: Fair Oaks-City Limit (shared use)	\$37,700
14	Bernardo: Homestead-Fremont (parking restriction)	\$83,800
15	Belleville: Fremont-Homestead (parking restriction)	\$81,000
16	Wildwood: Bridgewood-City Limit (parking removal)	\$55,900
17	Remington: Bernardo-Sunnyvale (lane removal)	\$111,700
18	California: Mary-Mathilda (restriping)	\$41,300
19	Olive: Mathilda-Fair Oaks (shared use)	\$22,700
20	Lakewood/Sandia Bikeway (shared use)	\$22,700
21	Fair Oaks: Evelyn-Old San Francisco (shared use)	\$12,900
22	Persian: Ross-Morse (Parking Removal)	\$63,700
23	Maude: Mathilda-Wolfe (shared use)	\$25,600
24	Northwest Bikeway (shared use)	\$45,700
25	California: Mathilda-Fair Oaks (restriping)	\$45,000
26	Weddell: Ross-Existing Bike Path (restriping, shared use)	\$43,500
27	Duane: Pine-Fair Oaks (shared use)	\$32,700



28	Inverness: Bittern-Lachinvar (parking restriction)	\$110,300
29	Mathilda: Maude-El Camino Real (roadway widening)	\$467,000
30	Bordeaux: Mathilda-Moffett Park (parking removal)	\$76,900
31	Dunford: Marion-Benton (parking removal)	\$58,800
32	Washington: Bernardo-Bayview (parking restriction, lane removal, restriping)	\$110,800
33	Crossman: Caribbean-Moffett Park (parking removal, roadway widening)	\$258,500
34	Alberta: Hollenbeck-Sunnyvale/Saratoga (shared use)	\$34,600
35	Iowa: Bernardo-Sunnyvale (parking removal, restriping)	\$105,300
36	The Dalles: Bernardo-Hollenbeck (parking removal)	\$80,700
37	Ponderosa Bikeway (restriping, shared use)	\$103,300
38	Cascade: Bernardo-Yukon (parking restriction)	\$110,300
39	Community Center Bikeway (parking removal, shared use)	\$67,100
40	San Miguel Neighborhood Bikeway (parking removal, parking restriction)	\$83,300
41	Wolfe: Maria-Homestead (shared use)	\$37,000
42	Southeast Neighborhood Bikeway (restriping, parking restriction, shared use)	\$120,400
43	Lakehaven: Street End-Lawrence (shared use)	\$20,600
44	Knickerbocker: Mango-Hollenbeck (parking restriction)	\$60,500
45	Sequoia: Azalea-Iris (parking restriction)	\$47,600
46	Moffett Park: City Limit-Mathilda (roadway widening)	\$101,400
47	Java: Mathilda-Crossman (shared use)	\$304,000
48	Mary: Central-Maude (roadway widening)	\$161,600
49	Timberpine: Reed-Lily (parking restriction, roadway widening)	\$115,800
50	Bernardo: Remington-Fremont (roadway widening)	\$174,400
51	Lily: Henderson-White Oak (parking restriction, roadway widening)	\$181,300
52	Mary: Evelyn-Central (roadway widening)	\$89,600
53	Ahwanee: Mathilda-Santa Ynez (roadway widening)	\$694,400



Past Expenditures

The following is a list of past expenditures that have been made for bicycle access improvements since 1998.

Bicycle Expenditures Since 1998	
Project Name	Expenditure
Mary Avenue Lane Reduction	
Homestead Road Parking Restrictions	
Route 237/Maude Avenue Shoulder Improvement	
Baylands Bay Trail Bike Bridge	\$80,000
Bay Trail Improvements	
Installation of Bicycle Sensitive Loop Detectors	\$47,250
Traffic Signal Loop Detection for Bicycles at all signalized intersections	
Hetch-Hetchy path realignment	\$9,000
Fair Oaks Avenue/Persian Drive Bike Path	\$32,500
Lakewood Park Bicycle Path	
Hetch Hetchy Bicycle Path Reconstruction, Lakewood Park to Weddell Avenue	
Maude Avenue Bike Lanes	\$350,000
Bike Patrol Equipment	\$6,000
Mary Avenue Bike Lanes, Central Expressway/Almanor Avenue	\$30,000
Borregas Avenue Bike Lanes, Maude Avenue to Ahwanee Avenue	\$30,000
Sunnyvale Avenue Railroad Crossing Resurfacing	\$450,000
Mary Avenue Railroad Crossing Resurfacing	\$550,000
2nd Avenue Extension Bike Lanes	
Bernardo Avenue Railroad Crossing for Bikes and Pedestrians	\$354,315
Sunnyvale Parks - Bicycle parking improvement	
Citywide Arterial and Collector Street Bike Opportunities	\$50,000
Caribbean Avenue Bike Lanes, Mathilda Avenue to Moffett Park Drive	\$104,400
Mary Avenue Bike Lanes, Central Expressway/Almanor Avenue	\$74,150
Borregas Avenue Bike Lanes, Maude Avenue to Ahwanee Avenue	\$45,000
Arques Avenue Bike Lanes, Fair Oaks Avenue to Santa Trinita Avenue	\$106,100
County Bike Route 8	\$80,000
Sunnyvale Bike Network	\$350,000
Sunnyvale Caltrain Multi-Modal Station - Bike Improvements	
Lawrence Caltrain Station - Bike Improvements	
Evelyn Avenue Bike Lanes	\$170,000
Connecting North and South Sunnyvale for Bikes Project	\$262,000



Future Financial Needs

The following is a list of future financial needs that has been developed as part of the *Sunnyvale Long-Range Bicycle capital Improvement Program Study*, December 2000.

Future Financial Needs	
Bernardo Avenue Caltrain Undercrossing	TBD
Mathilda: US 101-Maude (restriping)	\$67,100
Mary: Fremont-El Camino Real (parking restriction)	\$103,000
Evelyn: Sunnyvale-Reed (lane removal)	\$123,900
Borregas (restriping, parking removal)5	\$139,600
Duane: Fair Oaks-Lawrence (lane removal, restriping)	\$97,300
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ATTACHMENT A

1993 Sunnyvale Bicycle Plan



ATTACHMENT B

Sunnyvale General Plan Map



ATTACHMENT C

Sunnyvale Zoning Map



ATTACHMENT D

Land Use and Transportation Element "The Use of Land"



ATTACHMENT E

Report to Council
and
Resolution Approving 2004 Bicycle
Transportation Plan

